#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019185 Address: 333 Burma Road **Date Inspected:** 05-Jan-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Liu Hua Jie **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG COMPONENT** 

#### **Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Subhasis Bera was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

In process Inspection

Trial Assembly

This QA Inspector observed the following work in progress:

FCAW in the 1G position for the OBG Segment 12BE to 12CE for splice joint weld No.OBE12A-003. The welder is identified as #040456. ZPMC QC is identified as Mr.Zhou Zhong Hai. The welding variables recorded by QC appear to comply with WPS-B-T-2231(T)-ESAB.

During random visual inspection at trial assembly area, before root pass welding of splice joint OBE12A-003, this QA inspector verified the root opening of this joint and found accepted according to the approved WPS. The data recorded for root opening approx. 8~12 mm. And after root pass this QA found lots of visual longitudinal crack found at center of the weld and informed to ZPMC QC and ABF QA to verify with magnetic particle testing. The QA witnessed the MPT and recorded all Y location of repaired area for future verification. For details please refer the attached photo.

SMAW in the 2G position for the OBG Segment 12AE for UT repair joint weld No.CA3001-006. The welder is identified as #040320. ZPMC QC is identified as Mr.Liu Hua Jie. The welding variables recorded by QC appear to

## WELDING INSPECTION REPORT

(Continued Page 2 of 3)

comply with WPS-345-SMAW-2G(2F)-FCM-REPAIR-1. The repair report is identified as CWR2682.

SMAW in the 2G position for the OBG Segment 12AW for UT repair joint weld No.SEG3004AA-021. The welder is identified as #046709. ZPMC QC is identified as Mr.Zhou Peng. The welding variables recorded by QC appear to comply with WPS-345-SMAW-2G(2F)-FCM-REPAIR-1. The repair report is identified as WR18909.

SMAW in the 2G position for the OBG Segment 12BW for UT repair joint weld No.CA3009-002. The welder is identified as #046709, ZPMC QC is identified as Mr.Zhou Peng. The welding variables recorded by QC appear to comply with WPS-345-SMAW-2G(2F)-FCM-REPAIR-1. The repair report is identified as WR18909.

SMAW in the 4G position for the OBG Segment 12AW for UT repair joint weld No.CA3007-005. The welder is identified as #040656. ZPMC QC is identified as Mr.Zhou Peng . The welding variables recorded by QC appear to comply with WPS-345-SMAW-4G(4F)-FCM-REPAIR-1. The repair report is identified as WR18910.

SMAW in the 4G position for the OBG Segment 12AW for UT repair joint weld No.CA3008-001. The welder is identified as #040656. ZPMC QC is identified as Mr.Zhou Peng. The welding variables recorded by QC appear to comply with WPS-345-SMAW-4G(4F)-FCM-REPAIR-1. The repair report is identified as WR18910. **BAY#11** 

This QA Inspector observed the following work in progress:

SAW in the 1G position for the OBG Bike path for splice joint weld No.BK011A-001-009. The welder is identified as #044550. ZPMC QC is identified as Mrs .Yu Dong Ping. The welding variables recorded by QC appear to comply with WPS-B-T-2221-B-L2C-S-2.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





# WELDING INSPECTION REPORT

(Continued Page 3 of 3)





## **Summary of Conversations:**

No relevant conversations

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Bera,Subhasis	Quality Assurance Inspector
Reviewed By:	Dsouza, Christopher	QA Reviewer